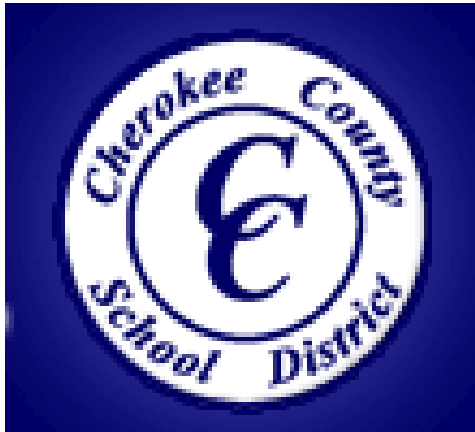


Cherokee County

1st, 3rd, and 5th Grade Students Body Mass Index (BMI) Report



2012-2013



Preface

According to the CDC, childhood obesity has more than tripled in the past 30 years and is a precursor to adulthood obesity. Because of the seriousness of this issue, Healthy People 2020 set the reduction of childhood obesity as one of its objectives. Research indicates that over half of all new obesity diagnoses in some population subgroups are being attributed to children under the age of 18. The CDC reports that obesity is a major risk factor for many severe diseases and conditions, including cardiovascular disease, certain types of cancer, and type-2 diabetes. In addition to these life-long repercussions, childhood obesity is associated with lower life expectancies and increased health care costs.

The South Carolina Joint Citizens and Legislative Committee on Children (JCLCC) was recently created by statute to research issues regarding the children of South Carolina, and to offer policy and legislative recommendations to the Governor and Legislature. The Committee recently identified four major focus areas which require serious consideration and action. Childhood Obesity is prominently featured as one of those areas. In their 2012 Annual Report, the JCLCC recommends that state and community-based efforts be implemented to improve children's nutrition and increase physical activity so as to stimulate healthy behaviors and lifestyles for our children.

In line with national and state statistics, Cherokee County is also severely impacted by a childhood obesity epidemic. The Cherokee County School District Body Mass Index (BMI) project is the result of a collaborative effort between the Cherokee County School District and DHEC. The collection of BMI is for the purpose of program evaluation, not health screening. Access to this data will help school personnel in creating programs that ensure a healthy environment where it is easy for students to make smart choices regarding eating and physical activity. The data will become part of the information that participating schools can use to evaluate the success of their efforts.

Measurements were obtained from children attending Cherokee County public schools in the 1st, 3rd and 5th grades. This vital assessment would not be possible without the cooperation and dedication of the Cherokee County School System. DHEC sincerely appreciates their commitment to this important project, and they are to be commended for taking a major step in a community-wide effort to address the problem of childhood obesity.



Body Mass Index (BMI) - 1st, 3rd and 5th Grade Students Cherokee County, South Carolina

Introduction

The rising rate of childhood obesity¹ is a major public health threat for our children. Currently one-third (33.6%) of American children and adolescents are either obese or at risk of becoming obese². In order to assess the healthy weight status of students in Cherokee County, body mass index (BMI) data was collected during the 2012-2013 school year. The purpose of this report is to highlight the percent of obese or overweight 1st, 3rd and 5th grade students in Cherokee County, South Carolina.

Methodology

Body Mass Index (BMI) is a number calculated from a person's weight and height. BMI provides a reliable indicator of body fatness for most people and is used to screen for weight categories that may lead to health problems.

BMI is calculated by multiplying a common conversion factor of 703 by weight in pounds (lb) divided by height in inches (in) squared. In other words,

$$BMI = 703 \times (Weight \text{ (lbs)} \div Height^2 \text{ (in}^2\text{)})$$

The weight status of children was determined by using growth charts developed by the Centers for Disease Control and Prevention. The growth charts show the distribution of BMI across a range of ages for a reference population. Children were classified as obese if their BMI-for-age was in the 95th percentile or above. Children were classified as overweight if their BMI-for-age was between the 85th and 94th percentile.

Students' height and weight were measured during the School Year of 2012-2013.

Demographic and health data were provided by the public school district's Physical Education staff.

Note:

92% of 1st graders were measured (627 of 682)

95% of 3rd graders were measured (584 of 616)

92% of 5th graders were measured (631 of 688)

¹-Obesity is defined as a child who has a body mass index (BMI) for age at or above the sex-specific 95th percentile of the BMI charts developed by the Centers for Disease Control and Prevention (CDC) in 2000. *At risk for obesity* is defined as a child with a BMI for age at or above the sex-specific 85th percentile but less than the 95th percentile of the CDC BMI charts. In most children, a BMI level at or above the 95th percentile indicates elevated body fat that reflects the presence or risk of related chronic diseases.

²-Save the Children. *Change Program: Creating Healthy, Active, and Nurturing Growing-up Environments*. June 2007.

www.savethechildren.org/newsroom/2007/rural-childhood-obesity

Key Findings

- 43% of 1st Graders were obese or overweight.
- 51.5% of 3rd Graders were obese or overweight.
- 54.3% of 5th Graders were obese or overweight.
- Differences/Disparities exist between White, African-American and Hispanic children.
- Differences/Disparities exist between male and female genders.

Conclusions

- Childhood obesity is a problem in Cherokee County.
- Efforts should continue to monitor BMI in children.
- The community should be made aware of the situation in order to implement change.

Actions for Prevention of Childhood Obesity³

Immediate actions involving stakeholders from multiple settings are needed to address the epidemic.

Local Governments

- Expand and promote opportunities for active living and healthy eating in the community through changes to ordinances, policies, capital improvement programs, and other planning practices.

Communities

- Provide opportunities for healthy eating and physical activity in existing and new community programs.
- Support legislation and other local and state-level action promoting healthy eating and physical activity.
- Seek resources in order to help implement and/or maintain programs to promote and support healthy eating and physical activity in the community.

Schools

- Implement school wellness policies that promote healthy eating and active living for both students and teachers.
- Improve the nutritional quality of foods and beverages served and sold in schools and as part of school-related activities.
- Routinely track BMI and offer appropriate counseling and guidance to children and their families.

Families

- Implement interventions to reduce the amount of time that children are sedentary such as while viewing television, playing video games, and using a computer.
- Monitor and discuss BMI information with family health care providers.
- Engage in and promote healthy eating and active lifestyles together as families.

³ - Institute of Medicine. *Preventing Childhood Obesity: Health in the Balance*. Report Brief, September 2004.
<http://iom.edu/report.asp?id=22596>

1st Grade Report

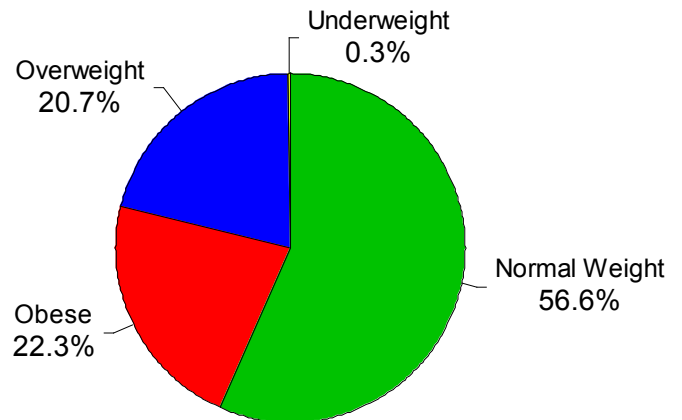


Weight status of 1st graders:

- 0.3% were underweight.
- 56.6% were in the normal weight range.
- 20.7% were overweight.
- 22.3% were obese.

Percent of children by weight status

Cherokee County First Grade - 627 Students



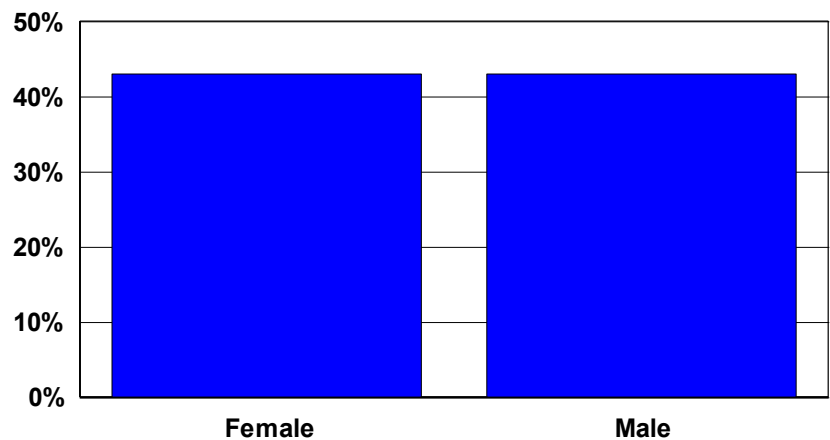
Underweight: BMI-for-age < 5th percentile
Normal: BMI-for-age 5th-<85th percentile
Overweight: BMI-for-age 85th-<95th percentile
Obese: BMI-for-age ≥ 95th percentile

Disparities in Obesity/Overweight by Gender:

- As many females as males were likely to be obese or overweight.

Percent of children who were obese or overweight by gender

Cherokee County - First Grade

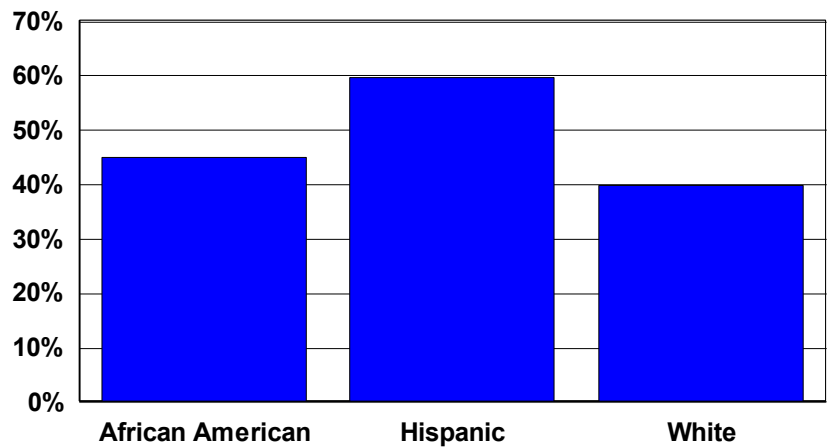


Overweight: BMI-for-age 85th-<95th percentile Obese: BMI-for-age ≥ 95th percentile

Disparities in Obesity/Overweight by Race/Ethnicity

- White children were least likely to be obese or overweight.
- African-American children were more likely than White children to be obese or over-weight.
- Hispanic children were more likely than White children and African American children to be obese or over-weight.

Percent of children who were obese or overweight by Race/Ethnicity
Cherokee County - First Grade



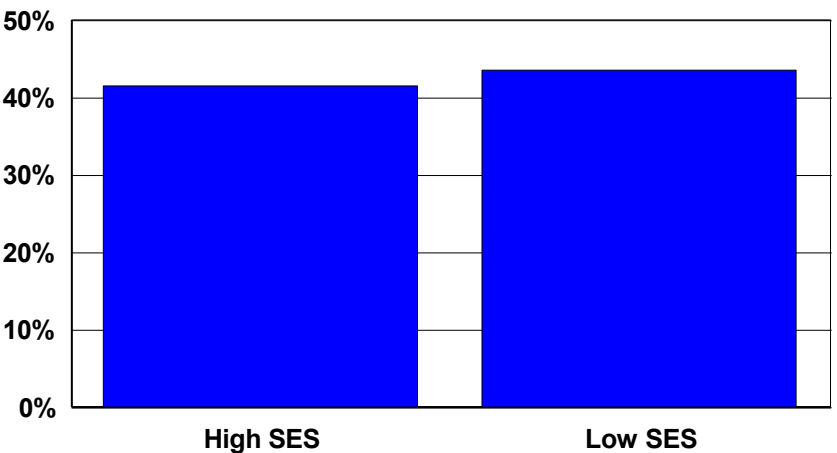
Overweight: BMI-for-age 85th-<95th percentile Obese: BMI-for-age ≥ 95th percentile
*Some categories have small numbers and should be used with caution.

For statistical reasons, race/ethnic groups comprising <4% of the data were not included. These groups/individuals are included in all other parts of the report.

Disparities in Obesity/Overweight by Socioeconomic Status (SES)

- Children from low SES households were more likely to be obese or overweight.

Percent of children who were obese or overweight by SES
Cherokee County - First Grade



Overweight: BMI-for-age 85th-<95th percentile Obese: BMI-for-age ≥ 95th percentile
† Based on Free and Reduced School Lunch Program eligibility

3rd Grade Report

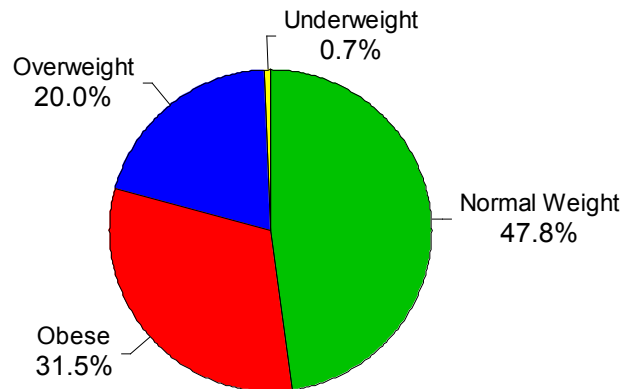


Weight status of 3rd graders:

- 0.7% were underweight.
- 47.8% were in the normal weight range.
- 20.0% were overweight.
- 31.5% were obese.

Percent of children by weight status

Cherokee County Third Grade - 584 Students



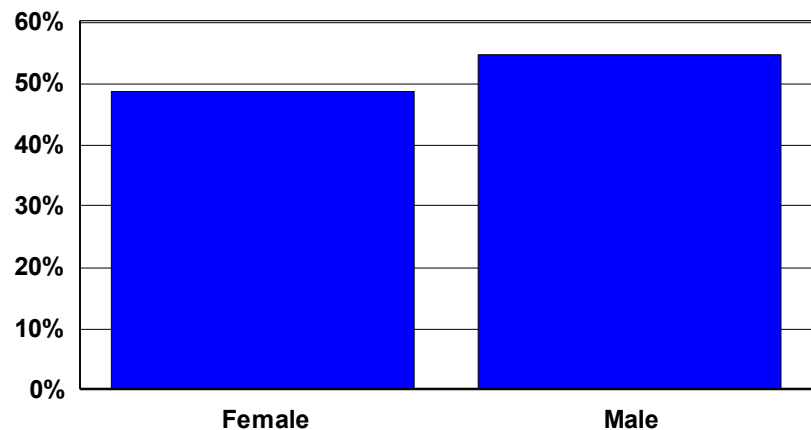
Underweight: BMI-for-age < 5th percentile
Normal: BMI-for-age 5th-<85th percentile
Overweight: BMI-for-age 85th-<95th percentile
Obese: BMI-for-age ≥ 95th percentile

Disparities in Obesity/Overweight by Gender

- Males were more likely to be obese or overweight.

Percent of children who were obese or overweight by gender

Cherokee County - Third Grade

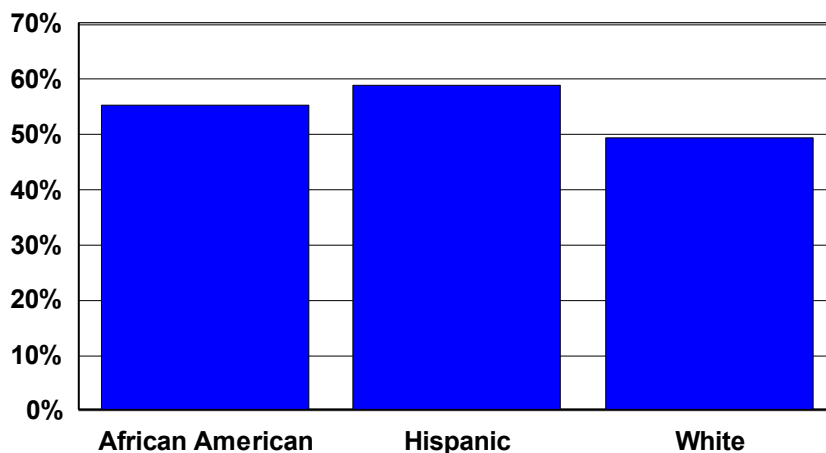


Overweight: BMI-for-age 85th-<95th percentile Obese: BMI-for-age ≥ 95th percentile

Disparities in Obesity/ Overweight by Race/ Ethnicity

- White children were least likely to be obese or overweight.
- African-American children were more likely than White children to be obese or over-weight.
- Hispanic children were more likely than White children and African American children to be obese or over-weight.

Percent of children who were obese or overweight by Race/Ethnicity
Cherokee County - Third Grade



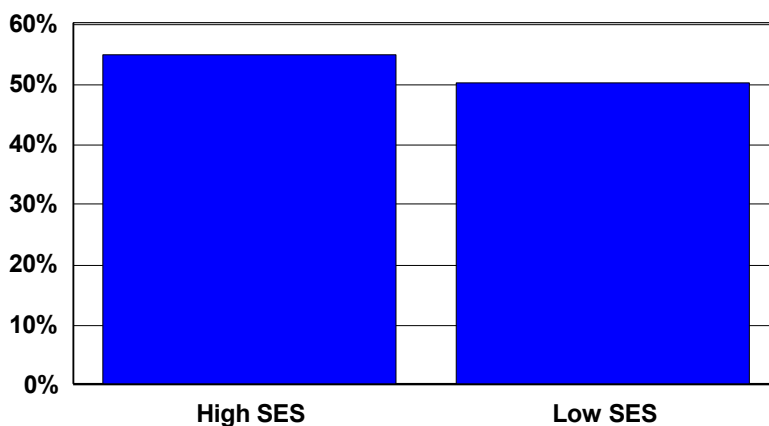
Overweight: BMI-for-age 85th-<95th percentile Obese: BMI-for-age ≥ 95th percentile
*Some categories have small numbers and should be used with caution.

For statistical reasons, race/ethnic groups comprising <4% of the data were not included. These groups/individuals are included in all other parts of the report.

Disparities in Obesity/ Overweight by Socioeconomic Status (SES)

- Children from high SES households were more likely to be obese or Overweight.

Percent of children who were obese or overweight by SES
Cherokee County - Third Grade



Overweight: BMI-for-age 85th-<95th percentile Obese: BMI-for-age ≥ 95th percentile
† Based on Free and Reduced School Lunch Program eligibility

5th Grade Report

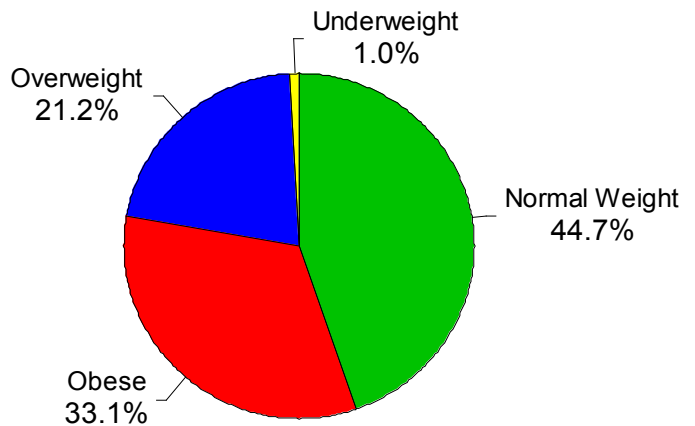


Percent of children by weight status

Cherokee County Fifth Grade - 631 Students

Weight status of 5th graders:

- 1.0% were underweight.
- 44.7% were in the normal weight range.
- 21.2% were overweight.
- 33.1% were obese.



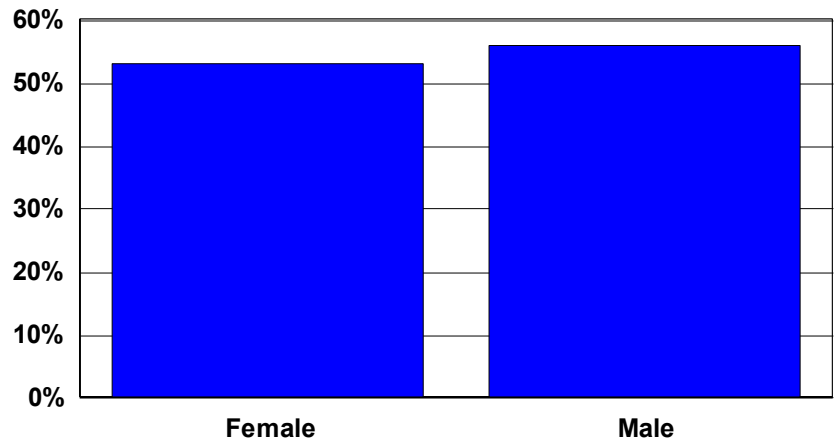
Underweight: BMI-for-age < 5th percentile
Normal: BMI-for-age 5th-<85th percentile
Overweight: BMI-for-age 85th-<95th percentile
Obese: BMI-for-age ≥ 95th percentile

Percent of children who were obese or overweight by gender

Cherokee County - Fifth Grade

Disparities in Obesity/Overweight by Gender

- Males were more likely to be obese or overweight.

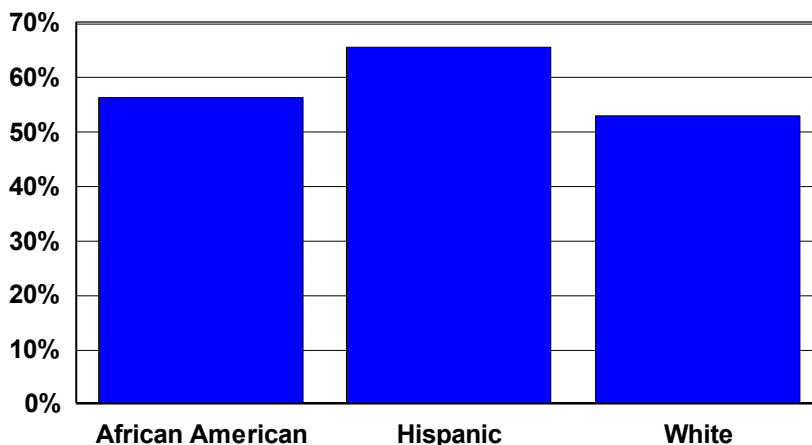


Overweight: BMI-for-age 85th-<95th percentile Obese: BMI-for-age ≥ 95th percentile
†

Disparities in Obesity/ Overweight by Race/Ethnicity

- White children were least likely to be obese or overweight.
- African-American children were more likely than White children to be obese or overweight.
- Hispanic children were more likely than White children and African American children to be obese or overweight.

Percent of children who were obese or overweight by Race/Ethnicity
Cherokee County - Fifth Grade



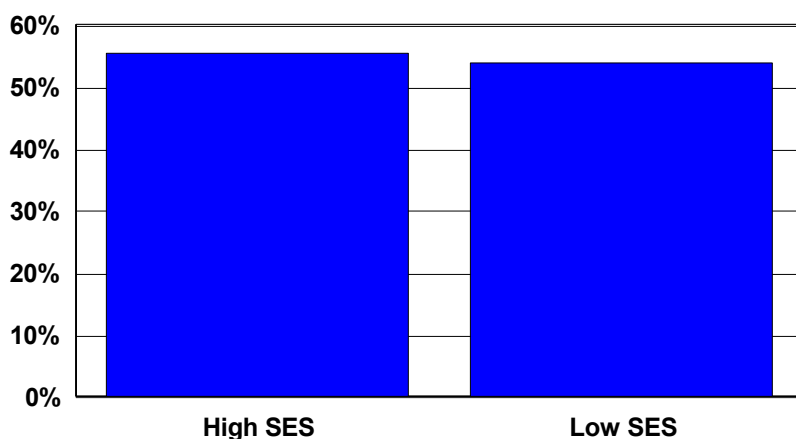
Overweight: BMI-for-age 85th-<95th percentile Obese: BMI-for-age ≥ 95th percentile
*Some categories have small numbers and should be used with caution.

For statistical reasons, race/ethnic groups comprising <4% of the data were not included. These groups/individuals are included in all other parts of the report.

Disparities in Obesity/ Overweight by Socioeconomic Status (SES)

- Children from high SES households were more likely to be obese or overweight.

Percent of children who were obese or overweight by SES
Cherokee County - Fifth Grade



Overweight: BMI-for-age 85th-<95th percentile Obese: BMI-for-age ≥ 95th percentile
† Based on Free and Reduced School Lunch Program eligibility

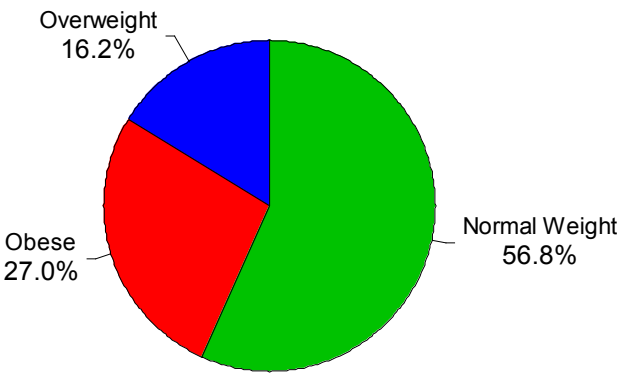
School Reports by Grade Level



Cherokee County 1st Grade

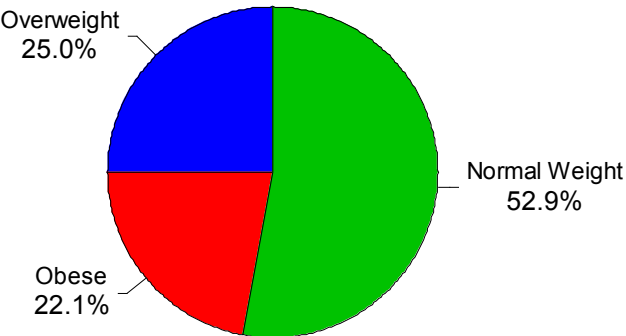
Percent of children by weight status

Alma Elementary- First Grade - 37 Students



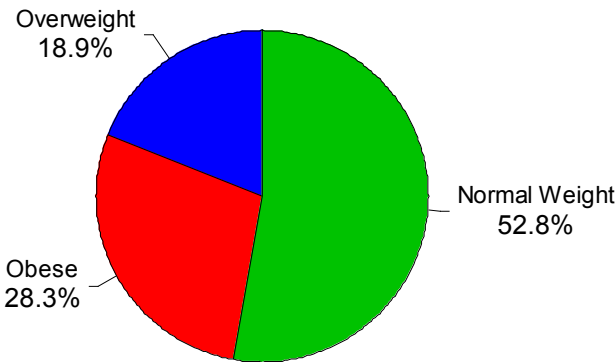
Percent of children by weight status

Corinth Elementary - First Grade - 68 Students



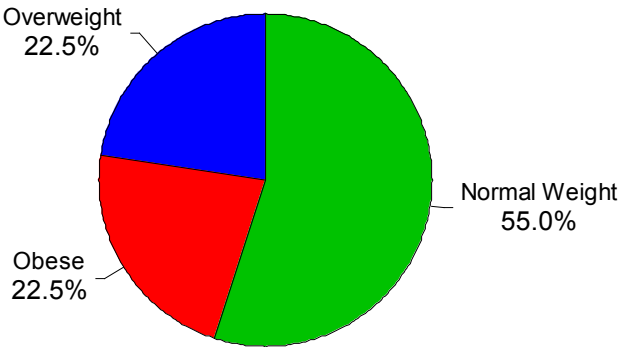
Percent of children by weight status

B. D. Lee Elementary- First Grade - 53 Students



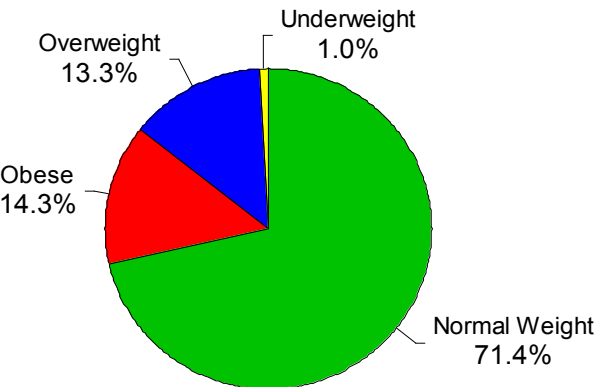
Percent of children by weight status

Daytonville Elementary - First Grade - 40 Students



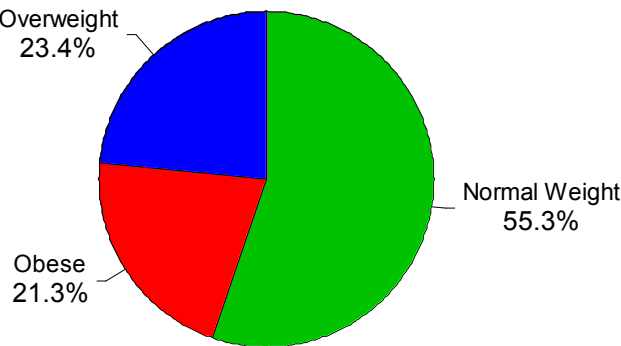
Percent of children by weight status

Blacksburg Primary - First Grade - 105 Students



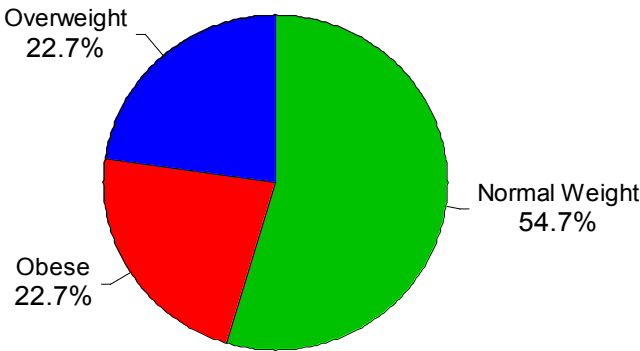
Percent of children by weight status

Goucher Elementary - First Grade - 47 Students



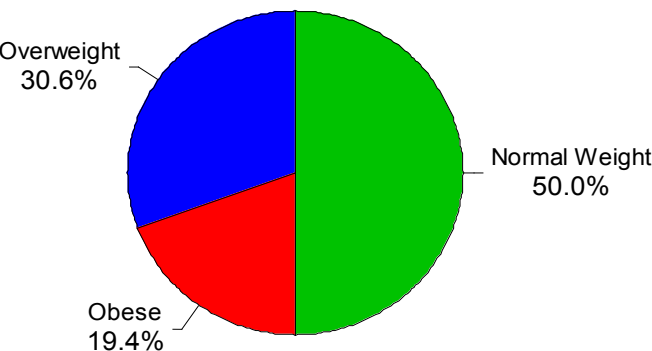
Percent of children by weight status

Grassy Pond Elementary - First Grade - 75 Students



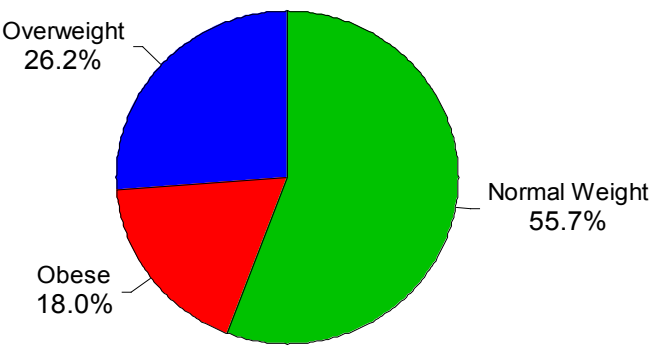
Percent of children by weight status

Mary Bramlett Elementary - First Grade - 36 Students



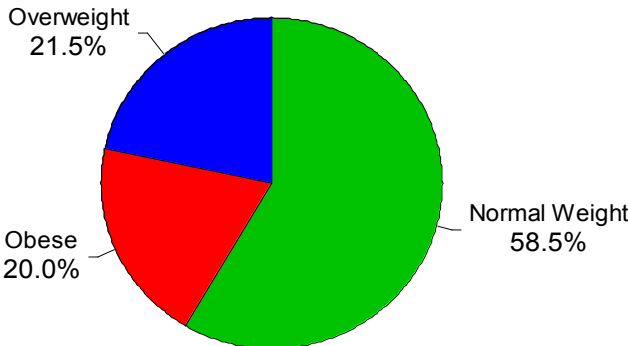
Percent of children by weight status

Limestone-Central Elementary - First Grade - 61 Students



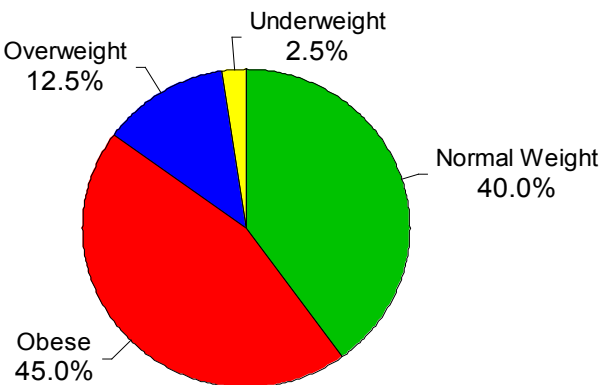
Percent of children by weight status

Northwest Elementary - First Grade - 65 Students



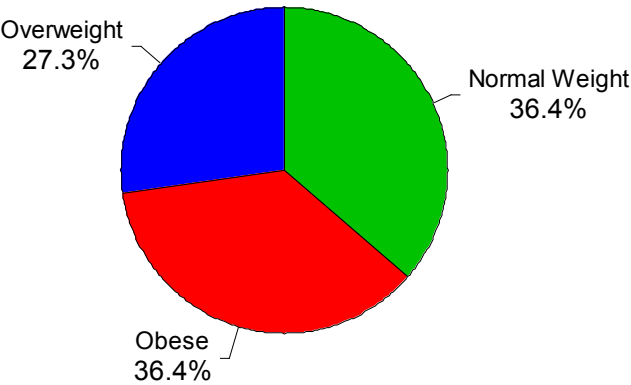
Percent of children by weight status

Luther Vaughan Elementary - First Grade - 40 Students



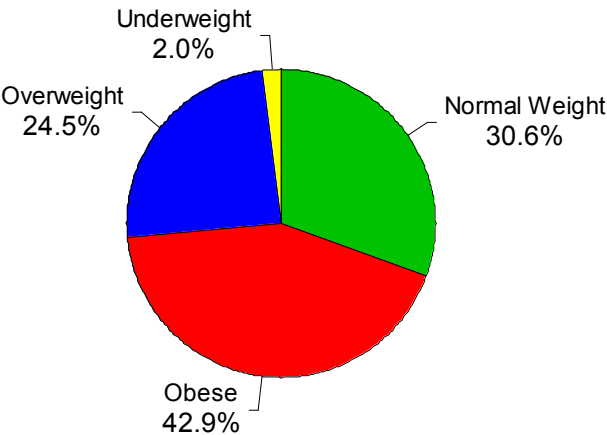
Percent of children by weight status

Alma Elementary- Third Grade - 33 Students



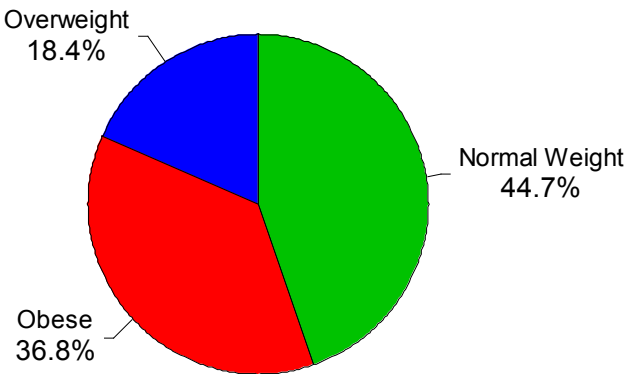
Percent of children by weight status

Corinth Elementary - Third Grade - 49 Students



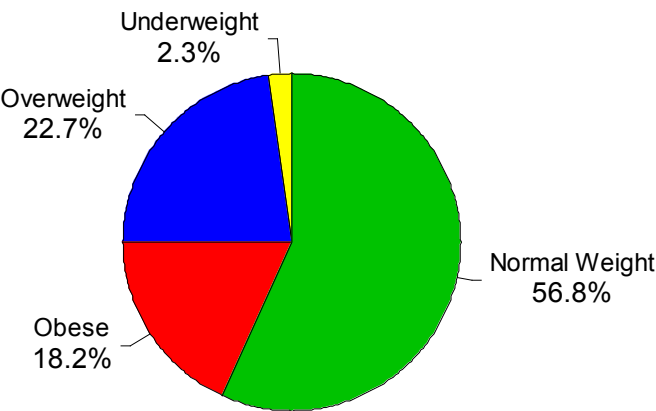
Percent of children by weight status

B. D. Lee Elementary- Third Grade - 38 Students



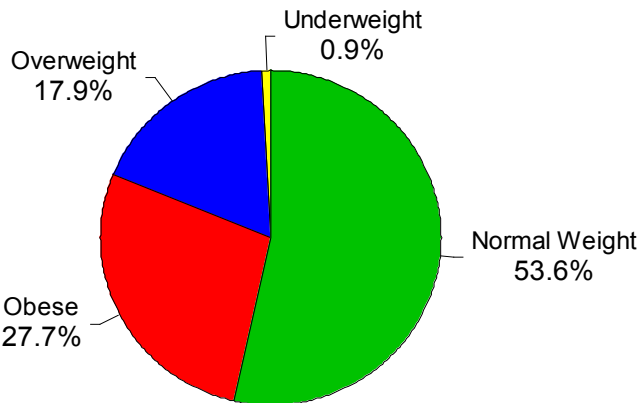
Percent of children by weight status

Daytonville Elementary - Third Grade - 44 Students



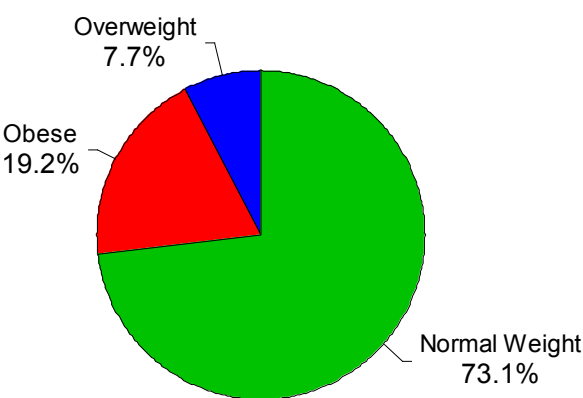
Percent of children by weight status

Blacksburg Elementary - Third Grade - 112 Students



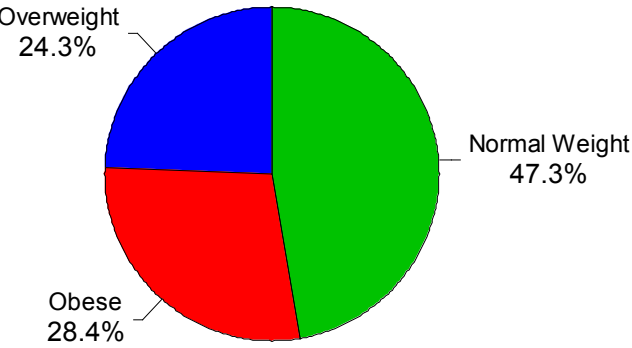
Percent of children by weight status

Goucher Elementary - Third Grade - 26 Students



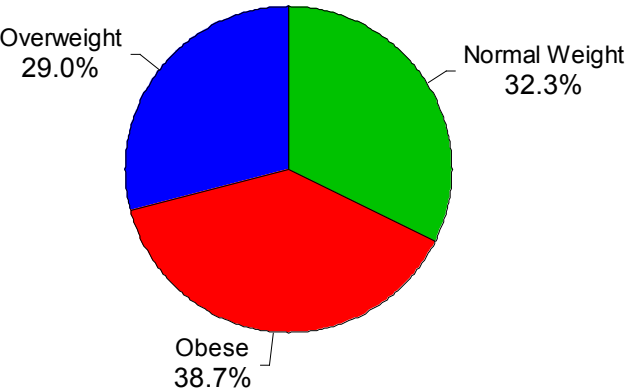
Percent of children by weight status

Grassy Pond Elementary - Third Grade - 74 Students



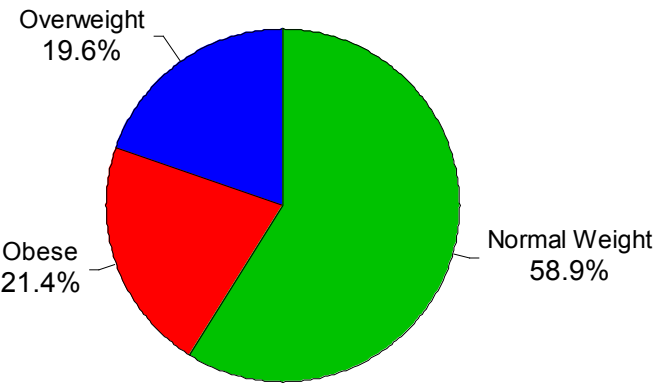
Percent of children by weight status

Mary Bramlett Elementary - Third Grade - 31 Students



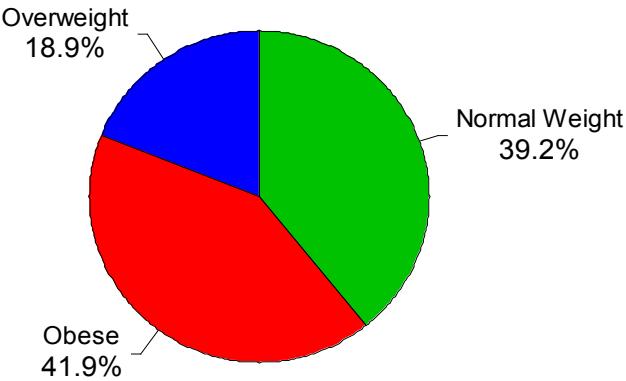
Percent of children by weight status

Limestone-Central Elementary - Third Grade - 56 Students



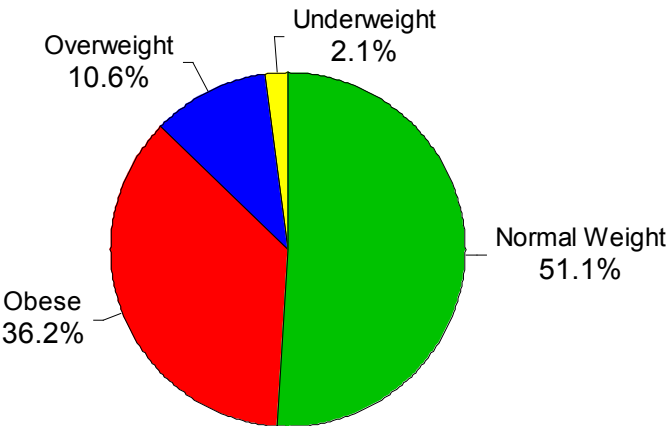
Percent of children by weight status

Northwest Elementary - Third Grade - 74 Students



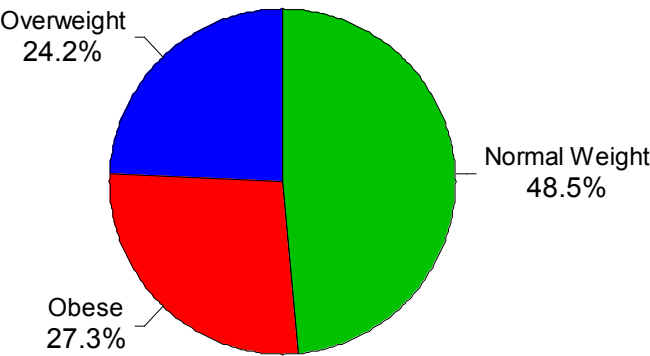
Percent of children by weight status

Luther Vaughan Elementary - Third Grade - 47 Students



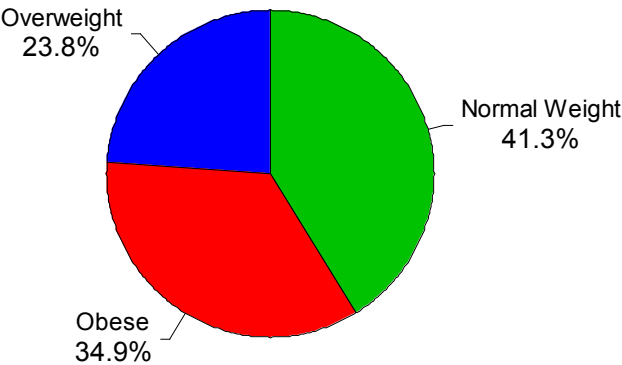
Percent of children by weight status

Alma Elementary- Fifth Grade - 33 Students



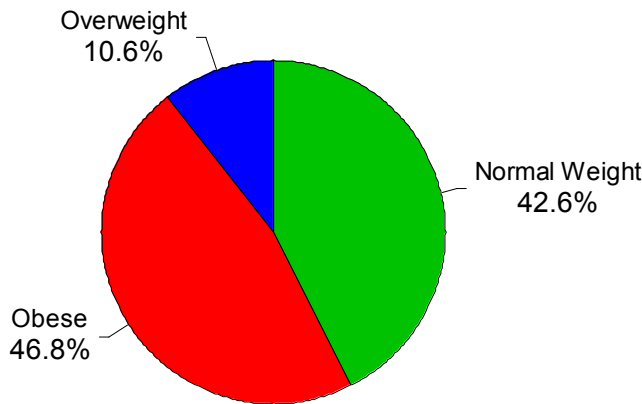
Percent of children by weight status

Corinth Elementary - Fifth Grade - 63 Students



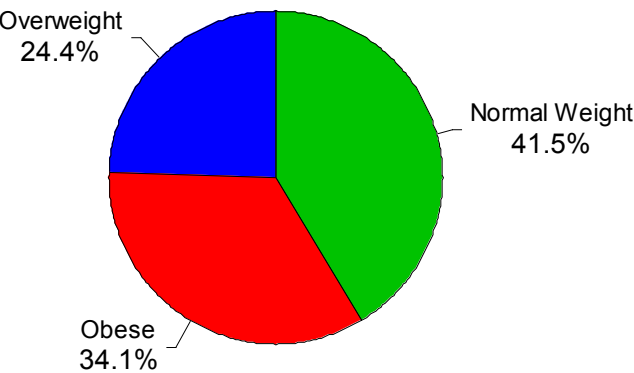
Percent of children by weight status

B. D. Lee Elementary- Fifth Grade - 47 Students



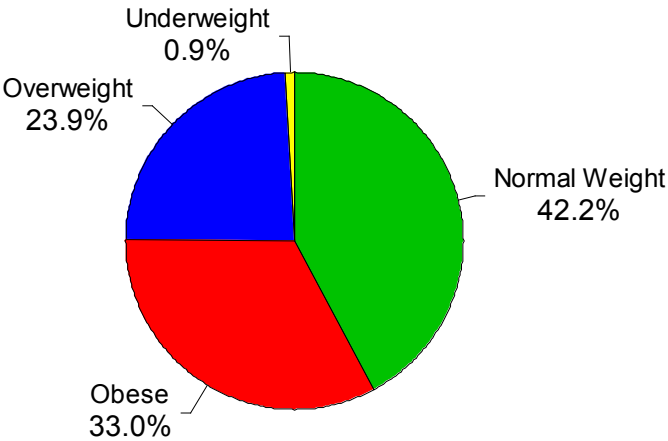
Percent of children by weight status

Draytonville Elementary - Fifth Grade - 41 Students



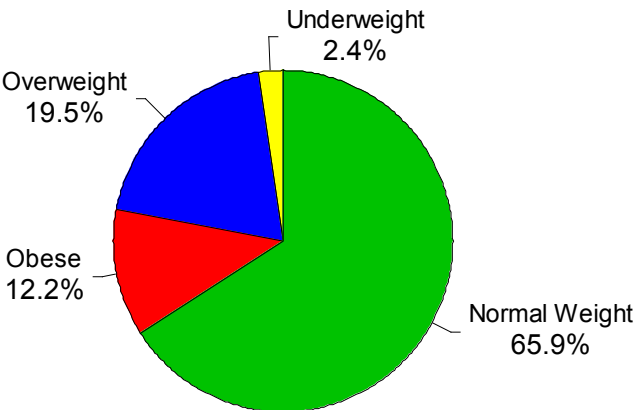
Percent of children by weight status

Blacksburg Elementary - Fifth Grade - 109 Students



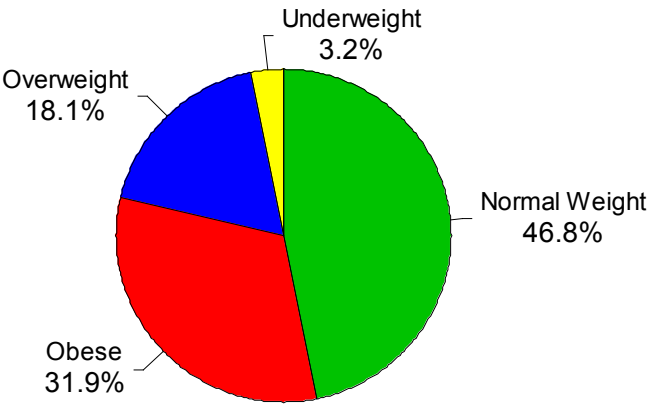
Percent of children by weight status

Goucher Elementary - Fifth Grade - 41 Students



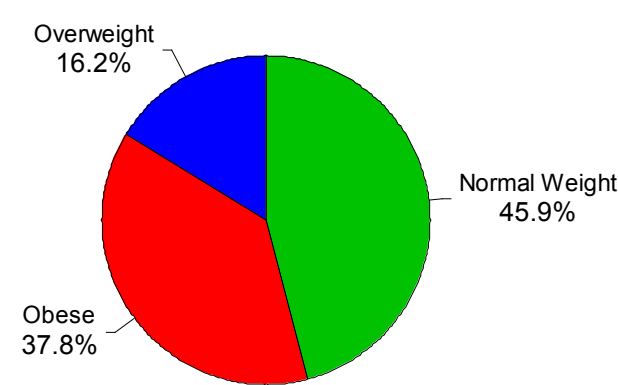
Percent of children by weight status

Grassy Pond Elementary - Fifth Grade - 94 Students



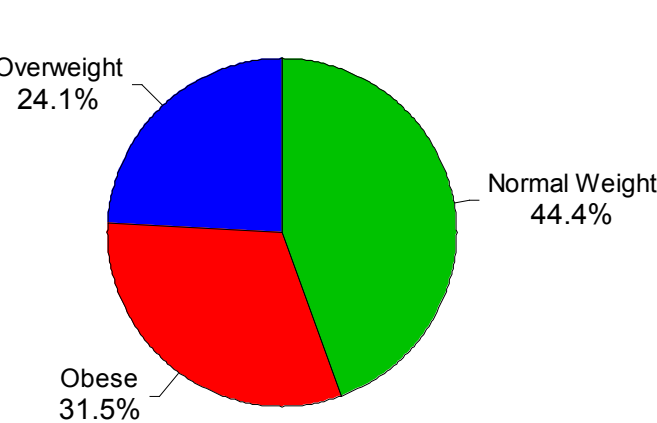
Percent of children by weight status

Mary Bramlett Elementary - Fifth Grade - 37 Students



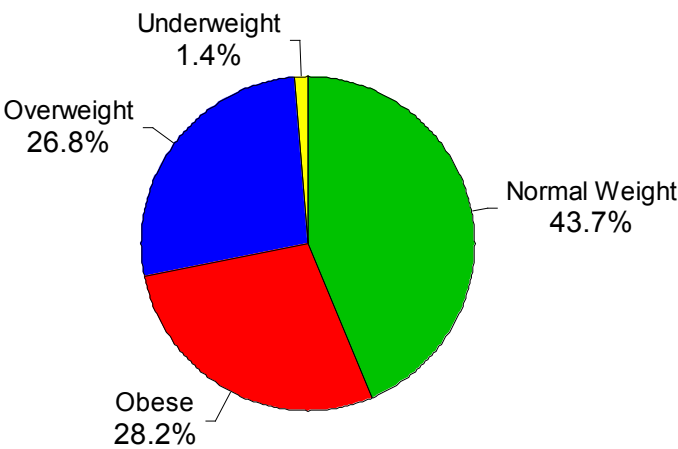
Percent of children by weight status

Limestone-Central Elementary - Fifth Grade - 54 Students



Percent of children by weight status

Northwest Elementary - Fifth Grade - 71 Students



Percent of children by weight status

Luther Vaughan Elementary - Fifth Grade - 41 Students

